

**AUTOMATED TRANSFORMATION OF SPECIFICATIONS FOR DEVICES  
INTO EXECUTABLE MODULES**

**Abstract**

5           A number of configuration elements are associated with a number of  
devices. Information about input configuration elements is accessed. An input  
configuration element is associated with one or more input rules. It is determined  
which of the configuration elements could be accessed by the input rules and any call  
chains emanating from the rules. Output rules are determined by using the accessed  
10 configuration elements, the input rules, and the way the input rule manipulates its  
accessed configuration elements. Each output rule may be derived from an input rule  
and corresponds to the same input configuration element associated with that input  
rule. An executable module is generated that is adapted to access at least a given one  
of the input configuration elements and to trigger one or more of the output rules  
15 corresponding to the given input configuration element. Read and write sets for rules  
are determined, and the triggered output rules ensure that restrictions associated with  
a configuration element are not violated